

# Work Order ID 101175

\*101175\*

Page 1

May-02-13 11:50:53 AM

Item ID: D205-634-111

Accept

\*N900040100\*

Setup Start \*NS1\*

Revision ID:

Stop \*NS2\*

Item Name: Skidtube

Start Date: 5/02/13 Start Qty: 1.00 \*1\*

Cust Item ID:

Required Date: 5/02/13 Req'd Qty: 1.00 \*1\*

Customer:

Reference: rework - ECN13-544

Approvals: Process Plan: W Date: Tooling: Date:

Run Start \*NR1\*

QC: Date: SPC (Y/N): Date:

Stop \*NR2\*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr
IIN D205-634	G

100

0.00

\*100\*

DC

Document Control

Memo

Photocopy bluefile & type labels per PPP D205-634-111  
CHG 004

0.00

101

0.00

\*101\*

HandFinish

Hand Finishing

Memo

PULL FROM STOCK:  
1 X D205-634-111 B78112 CHG003  
REMOVE THE 2 WEARPLATES  
1 X D4406-041 / 1 X D4406-043  
SCRAP  
INSTALL NEW WEARPLATES AT REV.C  
1 X D4406-041 B 98746  
1 X D4406-043 B 98746

0.00

<b>DART</b> Dart Aerospace Ltd. 1270 ABERDEEN ST. HAWKESBURY, ONT CANADA K6A 1K7				TC APPROVAL # 08-88 TEL: 1-613-632-6200	
P/N	D205-634-111	CHG	CHG003		
DESC.	Skidtube	STC	SH96-88		
LOT	B78112	STC	SR00563NY		
MODEL	Bell 205/210/212/214/412/UH-1H	STC			
PATENTS US 5,735,684 CA 2,222,184 EUROPEAN No. 0,828,655				MADE IN CANADA 02729-2	

(DAS 06 83) 13/6/18

124 d 11/13/06/ u

# Work Order ID 101175

May-02-13 11:50:53 AM

**\*101175\***

Page 2

Item ID: D205-634-111

Accept

**\*N900040100\***

Setup Start **\*NS1\***

Revision ID:

Stop **\*NS2\***

Item Name: Skidtube

Start Date: 5/02/13 Start Qty: 1.00 **\*1\***

Cust Item ID:

Required Date: 5/02/13 Req'd Qty: 1.00 **\*1\***

Customer:

Reference: rework - ECN13-544

Run Start **\*NR1\***

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Stop **\*NR2\***

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
105 <b>*105*</b> QC Quality Control	QC5- Inspect part completeness to step on W/O  Memo	0.00 0.00 13612				1			
110 <b>*110*</b> Packaging Packaging	Pick Kit  Memo ENSURE ORIGINAL KIT IS IN BOX	0.00 0.00							1 8 136-18
120 <b>*120*</b> QC Quality Control	QC4- 100% Inspect kits for completeness  Memo	0.00 0.00							(DAS) 13/0/14 06 9-88

# Work Order ID 101175

\*101175\*

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May-02-13 11:50:53 AM

Item ID: D205-634-111

Accept

\*N900040100\*

Setup Start \*NS1\*

Revision ID:

Stop \*NS2\*

Item Name: Skidtube

Start Date: 5/02/13 Start Qty: 1.00 \*1\*

Cust Item ID:

Required Date: 5/02/13 Req'd Qty: 1.00 \*1\*

Customer:

Reference: rework - ECN13-544

Run Start \*NR1\*

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Stop \*NR2\*

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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130

0.00

\*130\*

Packaging

Memo

0.00

Packaging

REPACKAGE PER PPP UISNG NEW B/N  
NEW LABELS AND PAPERWORK REQ'D

@ CHG004

Identify and pack for shipping as per PPP D205-634-111

Location: 823

PPP rev: \_\_\_\_\_

1 8 13-6-18

140

QC21- Final Inspection - Work Order Release

0.00

\*140\*

QC

Memo

0.00

Quality Control

13/6/19 88  
MCS 13-06-19

# Picklist Print

May-02-13 11:50:52 AM

Page 1

Work Order ID: 101175

Parent Item: D205-634-111

Parent Item Name: Skidtube

Start Date: 5/02/13

Required Date: 5/02/13

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP revA 11.09.26 new issue EC verified by:DD IPP REV:B 12.01.23 AS PER  
ECN11-684 DD VERF:EC IPP REV:C 13.03.21 AS PER ECN13-544 DD VERF:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D205-634-111 Skidtube		Manufactured	No				Each	0.0000		1		7/8/12	✓
D4406-041 Fwd Wearplate Assembly		Manufactured	No				Each	6.0000				13/06/14	
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				FP002		6						✓	
				98746		6							
D4406-043 Aft Wearplate Assembly		Manufactured	No				Each	6.0000		1		13/06/14	
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				FP001		6						✓	
				98747		6							

# ENGINEERING CHANGE NOTICE

## DART AEROSPACE LTD

Date: 13.03.21	Job No.: ENG4108	ADR Yes/No: Y	ADR Date: 13.03.21	ECN #: 13- 544
Product No.: D205-634		Created By: AJS	Approved By: <i>[Signature]</i>	
Product Name: SKID TUBE (TRAINING WEARPLATE)		Checked By: <i>[Signature]</i>		

Distribution	Reqd	Resp	Initial / Date (YY/MM/DD)
Director of Operations	Y	NF	
Production Manager / Coord.	Y	LL/MF	
Purchasing Coord.	N	CL	
Production Engineering Coord.	Y	DD/JLM	
Production Engineering Coord.		DL	
Customer Order Processing		RM/CA	

Distribution	Reqd	Resp	Initial / Date (YY/MM/DD)
DQA / QA Coord.	Y	PS	
QC Coordinator	Y	ED	
Customer Support	Y	SW/LM	
Customer Technical Support	Y	MB/DS	
Marketing		HM	

Reason for Change: DESIGN IMPROVEMENT

Documents Affected:  
D4406 & D4407 REV. C  
MDL-D205-634 REV. Y

PAPERWORK UPDATE ☐ PARTS MUST COMPLY ☒ PREVIOUS PARTS SATISFACTORY ☐

#	Quality Assurance Actions	Reqd	Resp	Notes	Complete
1	Notify Previous Customers	N			
2	Notify Eurocopter France	N			
3					

#	Engineering Actions	Reqd	Resp	Notes	Complete
4	Required Documents/Drawings Under Review	N			
5	Update Master Document List (MDL)	Y	AJS		13.03.21 DS
6	Update Product Compatibility Matrix	N			
7	Create Eurocopter Form (FEE)	N			
8	Notify TC / FAA of Change	N			
9					

#	Document Control Actions	Reqd	Resp	Notes	Complete
10	Move Electronic Files/Design Journal	Y	KJ		13.03.21 DS
11	Update Product Specification Files	N			
12	Update Approved/Preliminary Dwg PDF Files	Y	KJ		13.03.21 DS
13	Update Document Record (DR)	N			
14	Update Product Development Summary	N			
15	Update QSI 021 and/or STC Approval List	N			
16	Create/Update Parts / STC Database	N			
17	Update / Verify ARC Database	N			
18	Create / Update Change Record Form / Item Card Database	Y	KJ	SEE BELOW	13.03.21 DS
19	Create / Update PPP's	Y	KJ		
20	Red Decals required?	Y	KJ		
21	Update Document Control Database / Laminated Dwgs	N			
22	Update Grey Project / Electronic Binder PDF Files	Y	KJ		13.03.21 DS
23	Update D-Part/M-Drawing/DSI/DEO Master Binders	Y	KJ		13.03.21 DS
24	Manufacturing Licensing Agreement Update	N			

Description / Action:

ROLL D205-634-111 TO CHG 004 - 101175 - 101176 - 101177 - 101178

ROLL D205-634-141 TO CHG 004

ROLL D205-634-143 TO CHG 003

Scrap any D4406 or D4407 parts in stock manufactured before Rev. C 95737-738.739

Release D4406 & D4407

ECN Verified & Complete: \_\_\_\_\_ Date: \_\_\_\_\_



NCR: Yes / No

**WORK ORDER NON-CONFORMANCE / UPDATE**

DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order: _____  Part No. _____  NCR No. _____	<b>DISPOSITION</b>  Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>	<b>AGAINST DEPARTMENT/PROCESS</b>  <table style="width: 100%;"> <tr> <td>Skid-tube <input type="checkbox"/></td> <td>Crosstube <input type="checkbox"/></td> <td>Water Jet <input type="checkbox"/></td> <td>Engineering <input type="checkbox"/></td> </tr> <tr> <td>Machining <input type="checkbox"/></td> <td>Small Fab <input type="checkbox"/></td> <td>Prod. Eng. Coord. <input type="checkbox"/></td> <td>Quality <input type="checkbox"/></td> </tr> <tr> <td>Thermoforming <input type="checkbox"/></td> <td>Finishing <input type="checkbox"/></td> <td>Rec/Store/Packaging <input type="checkbox"/></td> <td>Other <input type="checkbox"/></td> </tr> <tr> <td>Large Fab <input type="checkbox"/></td> <td>Composite <input type="checkbox"/></td> <td>Supplier <input type="checkbox"/></td> <td></td> </tr> </table>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>	
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Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>																

Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data									
Equip/Tooling									
Operator									
Material									
Setup									
Other									
Process									
Supplier									
Training									
Unapproved									

**FAULT CATEGORY**

Landing Gear	General	Other
<input type="checkbox"/> Bending	<input type="checkbox"/> Bend	<input type="checkbox"/> Grain
<input type="checkbox"/> Centre Not Concentric to O/S	<input type="checkbox"/> BOM/Route	<input type="checkbox"/> Hardware
<input type="checkbox"/> Cracks	<input type="checkbox"/> Broken/Damaged	<input type="checkbox"/> Inspection Incomplete
<input type="checkbox"/> Crushed/Crimped	<input type="checkbox"/> Burrs	<input type="checkbox"/> Instructions Incomplete/Unclear
<input type="checkbox"/> Cuffs	<input type="checkbox"/> Contamination	<input type="checkbox"/> Maintenance
<input type="checkbox"/> Heat Treat	<input type="checkbox"/> Countersink	<input type="checkbox"/> Mislabelled
<input type="checkbox"/> Inspection Strip in Tube	<input type="checkbox"/> Cut Too Short	<input type="checkbox"/> Misread
<input type="checkbox"/> Ripples in Bend	<input type="checkbox"/> Drill Holes	<input type="checkbox"/> Offset
<input type="checkbox"/> Torque Waves in Extrusion	<input type="checkbox"/> Drawing	<input type="checkbox"/> Out of Calibration
<input type="checkbox"/> Turning Sequence	<input type="checkbox"/> Finish	<input type="checkbox"/> Out of Sequence
<input type="checkbox"/> Wave/Twist in Tube	<input type="checkbox"/> Folio	<input type="checkbox"/> Outside Dimensions
		<input type="checkbox"/> Ovalized
		<input type="checkbox"/> Over/Under tolerance
		<input type="checkbox"/> Part Incorrect
		<input type="checkbox"/> Part Lost/Missing
		<input type="checkbox"/> Part Moved
		<input type="checkbox"/> Positioned Wrong
		<input type="checkbox"/> Power Loss/Surge
		<input type="checkbox"/> Pressure/Forced
		<input type="checkbox"/> Temperature/Cure
		<input type="checkbox"/> Weld
		<input type="checkbox"/> Wrong Stock Pulled
		<input type="checkbox"/> Other

Work Order ID 101175

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May-02-13 11:50:53 AM

Item ID: D205-634-111

Accept

\*N900040100\*

Setup Start \*NS1\*

Revision ID:

Stop \*NS2\*

Item Name: Skidtube

Start Date: 5/02/13 Start Qty: 1.00

\*1\*

Cust Item ID:

Required Date: 5/02/13 Req'd Qty: 1.00

\*1\*

Customer:

Reference: rework - ECN13-544

Run Start \*NR1\*

Approvals:

Process Plan: *W*

Date:

Tooling:

Date:

Stop

\*NR2\*

QC:

Date:

SPC (Y/N):

Date:

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run HoursTool ID Tool # Plan Accept Reject Reject Insp.  
Code Qty Qty Number Stamp

Draw Nbr

Revision Nbr

IIN D205-634

G

0.00

100

\*100\*

DC

Document Control

Memo

Photocopy bluefile & type labels per PPP D205-634-111  
CHG 004

0.00

0.00

101

\*101\*

HandFinish

Hand Finishing

Memo

PULL FROM STOCK:  
1 X D205-634-111 B78112  
REMOVE THE 2 WEARPLATES  
1 X D4406-041 / 1 X D4406-043  
SCRAP  
INSTALL NEW WEARPLATES AT REV.C  
1 X D4406-041 B 98746  
1 X D4406-043 B 98746

0.00

<b>DART</b> Dart Aerospace Ltd. 1270 ABERDEEN ST. HAWKESBURY, ON, CANADA K6A 1K7		TC APPROVAL # 09-85 TEL: 1-613-632-5200	
P/N	D205-634-111	CHG	CHG003
DESC.	Skidtube	STC	SH96-88
LOT	B78112	STC	SR00563NY
MODEL	D205/210/212/214/412/UH-1	STC	
PATENTS: US #5735454, CA #2222184 EUROPEAN No. # 0826655		MADE IN CANADA D2729 2	

MCS 130618

1111 d 11113/06/11